

Project Development Phase Model Performance Test

Date	10 February 2025
Team ID	LTVIP2025TMID33633
Project Name	Grain pallette -a deep learning odyssey in rice type classification
Maximum Marks	10 Marks

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

1	Metrics	Regression Model: MAE-N/A,MSE-N/A,RMSE-N/A,R2-N/A Classification: Accuracy score:98% Classification reports: Class 0 precision 0.92 Recall 0.94 F1 score 0.94 Class 1 precision 0.91 Recall 0.94 F1 score 0.97 Class 2 precision 0.93 Recall 0.97 F1 score 0.92 Class 3 precision 0.96 Recall 0.92 F1 score 0.98 Class 4 precision 0.97 Recall 0.95 F1 score 0.93	
1.	Tune the Model	Hyperparameter Tuning - Learning rate=0.0001, Optimizer=Adam, Batch size-32 Validation Method - Train and Validation with separate Folders	

Screenshots:

Accuracy Score:

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391/391 ————— 304s 776ms/step - accuracy: 0.9874 - loss: 0.0419
Validation loss:0.0440
validation accuracy:0.9858

```

Tuning Model:

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Epoch 1/2
/usr/local/lib/python3.11/dist-packages/keras/src/trainers/data_adapters/py_dataset_adapter.py:121: UserWarning: Your 'PyDataset' class should call 'super().__init__(**kwargs)' in its constructor. '**kwargs'
self.warn_if_super_not_called()
1563/1563 ————— 1505s 960ms/step - accuracy: 0.9375 - loss: 0.1655 - val_accuracy: 0.9856 - val_loss: 0.0430
Epoch 2/2
1563/1563 ————— 1481s 947ms/step - accuracy: 0.9764 - loss: 0.0669 - val_accuracy: 0.9858 - val_loss: 0.0440

```

Validation Folder structure:

Downloads > archive > Test >		
Sort View ...		
Name	Date modified	Type
Yesterday		
Karacadag	27-06-2025 09:40 AM	File folder
Jasmine	27-06-2025 09:40 AM	File folder
Ipsala	27-06-2025 09:40 AM	File folder
Basmati	27-06-2025 09:40 AM	File folder
Arborio	27-06-2025 09:39 AM	File folder